

*Amended by
Wilson Lee
11-29-04*

CLAIMS

1) An electric gas lighting device (1) comprising an ignition circuit (5) for generating sparks at at least one burner (3) of a cooking range (2); said ignition circuit (5) being connected to a supply line (10) supplying a supply voltage (V_s), and comprising a discharge generating circuit (14), and enabling means (41) for alternatively enabling and disabling spark generation in the discharge generating circuit (14) when connected to and, respectively, disconnected from a reference potential line (33); said electric gas lighting device also comprising hand-operated switch means (7) having at least a first terminal (71) connected to a first terminal (43) of said enabling means (41) by a connecting line (35) defined by a single insulated conductor, and at least a second terminal (72) connected to said reference potential line (33); characterized in that a first node (16) of said discharge generating circuit (14) is connected to said reference potential line (33), and a second node (15) of said discharge generating circuit (14) is connected to a second terminal (44) of said enabling means (41).

2) A gas lighting device (1) as claimed in Claim 1, characterized by comprising an isolation transformer (40) interposed between said ignition circuit (5) and said supply line (10).

3) A gas lighting device (1) as claimed in Claim 2,

characterized in that said enabling means (41) are defined by a secondary winding (41) of said isolation transformer (40), the opposite terminals of a primary winding (42) of which are connected to said supply line 5 (10) and a neutral line (11).

4) A gas lighting device (1) as claimed in Claim 3, characterized in that said ignition circuit (5) comprises:

at least one output terminal (13, 13a) for 10 generating sparks at said at least one burner (3);

a transformer (22) having a primary winding (22a) connected between said first and said second node (16, 15) of said discharge generating circuit (14), and at least one secondary winding (22b) connected to said at 15 least one output terminal (13, 13a);

a rectifying diode (26) connected between said second terminal (44) of said secondary winding (41) of the isolation transformer (40) and said second node (15) of the discharge generating circuit (14);

20 a capacitor (29) connected between said first and said second node (16, 15), downstream from said rectifying diode (26); and

discharge means (21) connected in series to said primary winding (22a) of said transformer (22) of the 25 ignition circuit (5).

5) A gas lighting device (1) as claimed in Claim 1, characterized in that said hand-operated switch means (7) comprise a number of hand-operated switches (7) connected

in parallel between said connecting line (35) and said reference potential line (33); said hand-operated switches (7) being one in number for each of said burners (3), and being operated by means of respective regulating knobs (4).

6) A gas lighting device (1) as claimed in Claim 5, characterized in that said hand-operated switches (7) each comprise an attachment (73) housed inside a respective said knob (4); and a rocking blade (74),
10 ~~preferably elastic~~, connected to said first terminal (71) by said attachment (73) and projecting from the inside and beneath said knob towards said cooking range (2).

7) A gas lighting device (1) as claimed in Claim 6, characterized in that said second terminal (72) of said
15 hand-operated switch means (7) and said first node (16) of the discharge generating circuit (14) are connected to said reference potential line (33) via said cooking range (2).